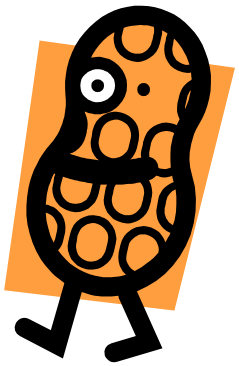
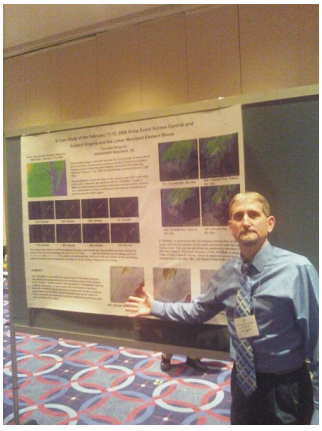


The Weather Nut

Issue 3 **Fall/Winter 2009-10**

A Newsletter from the NWS Office in Wakefield, VA

Inside this issue:



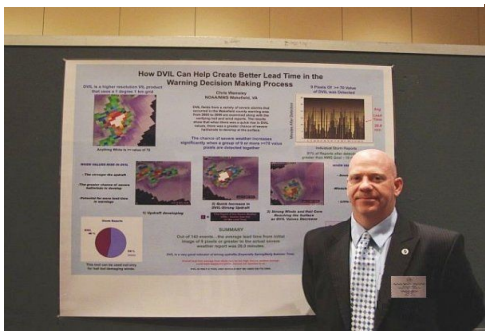
Meteorologist Tim Gingrich

NWS Wakefield Participates in National Weather Association 34th Annual Meeting

By Anthony Siebers, MIC and Chris Wamsley, Forecaster

NWS Wakefield participated in the 34th Annual Meeting of the National Weather Association, which was held October 18-22 in Norfolk, VA. Our office had 6 posters and presentations which included:

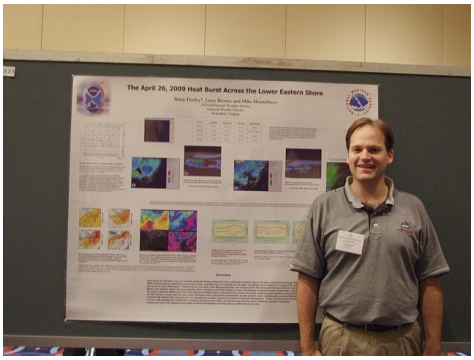
- "How DVIL Can Help Create Better Lead Time in the Warning Decision Making Process." – Chris Wamsley
- "Forecasting Wind Gusts over the Marine Locations along the Atlantic and Gulf Coasts of the United States." – Larry Brown
- "An Investigation of an Intense Gravity Wave over Southeastern Virginia." – Lyle Alexander
- The April 26, 2009 Heat Burst across the Lower Maryland Eastern Shore." – Brian Hurley
- "Examining the Results since WFO Wakefield Launched an Enhanced Short-Term Marine Forecast Program." – Sonia Mark Flechtner
- "A Case Study of the February 11-12, 2006 Snow Event Across Central and Eastern Virginia and the Lower Maryland Eastern Shore." – Timothy Gingrich



Meteorologist Chris Wamsley

Various members from the office also served as Program Committee members and Session Chairs during the 5 day conference. In addition, Wakefield gave an aviation weather safety presentation at the Norfolk Airport, sponsored by the Southeast Virginia Wings Club. It was scheduled in tandem with the National Weather Association meeting.

This was an outstanding meeting, and a chance to share advances in the science with other colleagues from across the nation.



Meteorologist Brian Hurley

Aviation News

By Mike Rusnak, Aviation Program Leader

Weather Safety Seminar

On October 17th, meteorologist Mike Rusnak gave an aviation weather safety presentation at the Norfolk International Airport. This aviation weather seminar was sponsored by the Southeast Virginia Wings Club which was scheduled in tandem with the National Weather Association annual meeting. The presentation focused on local aviation weather events and hazards for about 40 general aviation pilots in the area. The pilots focused on the information written in the aviation section of the area forecast discussion.

2009 Rotary Aviation Career Day

On October 29th, WFO Wakefield participated in the 24th annual Rotary Aviation Career Day at the Richmond International Airport. Meteorologist Mike Rusnak staffed the NWS booth at this event. Mike met with over 300 aviation-oriented high school students and counselors from over ten area high schools. The goal was to assist these students in choosing an aviation career (including the NWS), and to provide the counselors with information which would be helpful in aviation career counseling. Information on the NWS's aviation program as well as a listing of aviation and other weather related Web sites were available to the students. Questions concerning academic requirements for meteorologists were also answered.

NWS Participates in York River Oil Spill Exercise

By Sonia Mark Flechtner

On October 28, 2009 the National Weather Service participated in the Hampton Roads Industry-Led PREP (Preparedness for Response Exercise Program). This Exercise was jointly planned and evaluated by representatives of the United States Coast Guard, Western Refining, the Commonwealth of Virginia, and many other state and federal agencies.

This exercise was a simulation of a major pollution incident, the incident/scenario being that an oil spill occurred on the York River. The objectives of the exercise included;

- Development of strategies and tactics for discharge control, containment, and recovery.
- Ability of responders to provide initial assessment and potential impacts of spill.

Myself and meteorologist Scott Kennedy, of the NWS office in Newport, NC, participated in this exercise. We provided input as part of the Environmental Unit, providing forecasts for the spill location, as well as valuable tidal information.

Members of the Environmental Unit

Scott and I are training to become certified IMETs, (Incident Meteorologists) which are forecasters specifically trained to go to wildfires and other incidents to give site-specific weather briefings and forecasts. This was a great opportunity to work with our shared AMRS, All-hazards Meteorological Response System, which enables us to provide real-time meteorological support. The AMRS can be used throughout the country wherever wildfire, chemical spills, and other catastrophes threaten life or property. Once an IMET is deployed to the site of an incident, we can set up these portable AMRS units and provide critical weather information for emergency responders.

Meteorologists Scott Kennedy and Sonia Mark-Flechtner with the AMRS

Staff News

There have been few changes in the NWS Wakefield staff over the past few months.

- Louie Drebing, an Electronics Technician, transferred from the Eureka, CA NWS office to our office in the Summer of 2009.
- Jeffrey Lewitsky, General Forecaster, earned a Forecaster promotion to TAFB (Tropical Analysis and Forecasting Branch) in Miami in October 2009.
- Eric Seymour was promoted to Lead Forecaster here at WFO Wakefield. Eric was formerly a General Forecaster at WFO Charleston, WV.
- And in January 2010, we will be welcoming a new General Forecaster, Andrew Zimmerman, who has been a forecaster for the last two years at WFO Glasgow, MT.

We welcome our new additions to the Wakefield Team, and wish Jeff well in Miami!

Meteorologist Mike Montefusco presenting at a Skywarn in Portsmouth, VA

Turn Around, Don't Drown

By Keith Lynch, Service Hydrologist

What Is Turn Around Don't Drown™ (TADD)?

TADD is a NOAA National Weather Service campaign to warn people of the hazards of walking or driving a vehicle through flood waters.

Why is Turn Around Don't Drown™ So Important?

Each year, more deaths occur due to flooding than from any other severe weather related hazard. The Centers for Disease Control report that over half of all flood-related drownings occur when a vehicle is driven into hazardous flood water. The next highest percentage of flood-related deaths is due to walking into or near flood waters. Why? The main reason is people underestimate the force and power of water. Many of the deaths occur in automobiles as they are swept downstream. Of these drownings, many are preventable, but too many people continue to drive around the barriers that warn you the road is flooded.

What Can I Do to Avoid Getting Caught is This Situation?

Most flood-related deaths and injuries could be avoided if people who come upon areas covered with water followed this simple advice: Turn Around Don't Drown™.

The reason that so many people drown during flooding is because few of them realize the incredible power of water. A mere six inches of fast-moving flood water can knock over an adult. It takes only two feet of rushing water to carry away most vehicles. This includes pickups and SUVs.

If you come to an area that is covered with water, you will not know the depth of the water or the condition of the ground under the water. This is especially true at night, when your vision is more limited.

Play it smart, play it safe. Whether driving or walking, any time you come to a flooded road, TURN AROUND, DON'T DROWN!

Follow these safety rules:

- Monitor the NOAA Weather Radio, or your favorite news source for vital weather related information.
- If flooding occurs, get to higher ground. Get out of areas subject to flooding. This includes dips, low spots, canyons, washes etc.
- Avoid areas already flooded, especially if the water is flowing fast. Do not attempt to cross flowing streams. Turn Around Don't Drown™
- Road beds may be washed out under flood waters. NEVER drive through flooded roadways. Turn Around Don't Drown™
- Do not camp or park your vehicle along streams and washes, particularly during threatening conditions.
- Be especially cautious at night when it is harder to recognize flood dangers.

Working with Man's Best Friend

Since 2005 Scott Schumann and his dog Jazz have been a part of Richmond, VA Search & Rescue (SAR) team dedicated to finding missing persons. The group K-9 Alert (http://k9alert.org/) is a Non-Profit all volunteer team specializing in Wilderness, Water & Urban rescue and recovery. Virginia has an outstanding SAR presence and its all volunteer teams are frequently asked to respond to national disasters given the state's high training standards.

It took Scott and Jazz 2 years to reach certification and they continue training every weekend, regardless of weather. Scott estimates his team responds to over 60 SAR missions per year, a vast amount are for those missing in the wilderness. A new and growing SAR response is the urban setting for missing Alzheimer and Dementia cases.
K-9 Alert dogs are "Air Scent" trained meaning they run off leash covering vast amounts of terrain quickly to find missing people. K-9 Alert is the only SAR Team in VA that uses canines in Water Recovery. This task requires the canine to scent for a drowned person off boat or zodiac.

Searches come 24/7 and Scott credits the NWS for supporting volunteer First Responder activities. In addition, being a former Meteorologist, Scott enjoys educating the state's SAR resources in NWS forecast products and has given formal weather presentations at state SAR conferences. Scott sees SAR weather needs very similar to Fire Weather "Spot" Forecasts. SAR teams with canines rely on wind forecasts since the dogs work with the wind flowing at them. One canine and handler (the human) can cover more ground than 10 people searching.

"Searches come 24/7 and Scott credits the NWS for supporting volunteer First Responders activities."

When asked why he decided to try SAR Scott simply says he had a dog that was too "high drive" and felt it a waste to let that good smelling nose go to waste.

Scott Schumann and his Dog Jazz

Skywarn Recognition Day

By Mike Montefusco, Meteorologist and Steve Crow, NWS Wakefield Amateur Radio Coordinator

SKYWARN is a network of volunteer weather spotters who provide NWS offices with real time severe weather reports, and other timely weather information. At NWS Wakefield, one very important part of our SKYWARN network is the amateur radio community, known as the "Hams" for short. The Wakefield Amateur Radio team is a group of FCC-licensed radio operators who communicate with other radio operators from around our area. During severe weather, the group collects severe weather reports and sends them directly to NWS Wakefield. These reports are often used by NWS meteorologists in preparing and verifying severe thunderstorm and tornado warnings. To celebrate the work done by the Wakefield Amateur Radio team, and others like it nationwide, SKYWARN Recognition Day was developed in 1999 by the National Weather Service and the American Radio Relay League. This year, SKYWARN Recognition Day will be celebrated on December 5th 2009 at our office in Wakefield.

The Amateur Radio Team will be on-site and broadcasting for the entire 24 hour period—starting at 8 PM Friday, December 4 through 8 PM Saturday, December 5. Control Operators from the team will be on site throughout the day, and cordially invite anyone wanting to sit down and make a few contacts-- licensed or not-- to sign up and participate.

The group's goal is to make as many contacts with other NWS offices and other ham radio operators as possible. Last year, 114 contacts were made, 47 to other NWS offices in 29 states. The most distant contact made was in Italy- 4,603 miles away!

For more information or to participate in SKYWARN Recognition Day, visit the Amateur Radio Team's page at http://www.wx4akq.org/srd or the NWS Skywarn Recognition Day homepage at http://www.wrh.noaa.gov/mtr/hamradio/

Climate Corner

By Lyle Alexander

EL NINO HAS DEVELOPED IN THE PACIFIC

The water temperatures over the equatorial portion of the Pacific can have a wide reaching influence in many parts of the world by affecting the jet stream in the upper atmosphere. An El Nino is characterized by warmer than normal sea surface temperatures over the mid Pacific. Currently, El Nino conditions are increasing in the Pacific. It appears that it will reach moderate or greater intensity this winter.

Its effect on the United States is more definitive in some areas than in others and depends on the strength of the El Nino. The effects are more noticeable in winter than in other seasons. Typically, El Nino results in above normal precipitation in the southern United States and especially in California. It also results in below normal temperatures across the southern United States. Winter precipitation is below normal in parts of the Midwest and particularly in the Ohio and Tennessee Valley. Its effects on the Mid Atlantic States are not reliable but our studies here at Wakefield show a slight tendency for below normal temperatures and above normal precipitation.

Follow this link for more details on El Nino:

http://www.cpc.ncep.noaa.gov/products/precip/CWlink/MJO/enso.shtml#discussion

Climate Corner Continues...

WINTER OUTLOOK

The Climate Prediction Center outlook for December through February is based on the ENSO cycle (now in the El Nino stage), long term trends and soil moisture. It places Virginia in an area of below normal temperatures. There is no clear sign as to whether precipitation will be below, near, or above normal.

Many people ask about snowfall for the upcoming winter. Here are some facts:

The Richmond and Norfolk areas have been in a snow drought during the last several years. The 11 year running average of snowfall going back to the late 1800s is at a historic low point.

The snowfall varies considerably across the area during individual storm and on a seasonal basis. Some patterns favor inland and northern portions of our County Warning area and others favor southern and coastal areas.

A quick check of the past 30 years reveal that most winters (or individual months) that have above normal snowfall tend to also have below normal temperatures. However, there are many winters when temperatures have been solidly below normal but were not associated with above normal snowfall.

The greatest predictor for heavy snowfall on the East Coast (including southeast Virginia) climatologically is the North Atlantic Oscillation (NAO). The NAO has to do with pressure patterns over the Atlantic Ocean between Greenland and the Azores. A negative NAO is often associated with colder than normal temperatures in both the Northeast United States and northern Europe and significant east coast snowstorms normally occur with a negative NAO. The pattern of the NAO cannot be reliably predicted more than a few weeks in advance.

The following link provides further information about NAO:

http://www.cpc.ncep.noaa.gov/data/teledoc/nao.shtml

The fall season has exhibited a noticeable tendency for coastal storms to intensify and even stall off the Mid-Atlantic Coast and one question to ask is whether this trend will continue. During this fall, there were 3 storms in particular: the first was between 8th and 12th of September. The second was around the 17th and 18th of October. The last one was from the 11th to the 13th November. Storms like these in the winter could be a pattern favorable for significant winter precipitation for portions of our County Warning Area assuming that cold air is in place.

Climate Corner Continues...

The November storm will be remembered for a long time. Very briefly, it produced historically significant high tides in the Hampton Roads area, continuous Gales (at times Storm force winds) over the Chesapeake Bay and coastal waters for just over two days and copious amounts of rain. The rainfall ranged from 3 to 6 inches in the Piedmont to over 10 inches in portions of the Tidewater area. The low pressure system that impacted the area was not tropical in nature however it contained moisture from Hurricane Ida. More information can be found on our website at:

http://www.erh.noaa.gov/er/akq/wx_events/other/November%201113th%20Noreaster.pdf

This last storm exhibited characteristics typical of El Nino. This included mild temperatures in the Midwest. Even in the winter, a storm like this may not be cold enough for significant snowfall.

It is likely that the extended period of below normal snowfall of recent years will reverse itself at some point, but there is no indication when this will happen.

In summary, there is a higher than normal chance for below normal temperatures this winter. There is not a definite signal as to what our precipitation or snowfall will be.

CLIMATE PATTERNS FOR THE PAST SEVERAL MONTHS

There was a posting on our website concerning the 2009 summer weather.

http://www.erh.noaa.gov/akq/climate/special/2008%20Year%20in%20Review.pdf

An update is planned for in late November or early December. In summary, we have had the slowest Atlantic hurricane season in many years with only nine named storms through mid November. Much of the northern and central part of the country has experienced unusually cool and wet weather since early summer. It was one of the coolest summers on record in the Northeast. Temperatures during the summer were above to much above normal on the west coast and in portions of the Southwest and deep South..

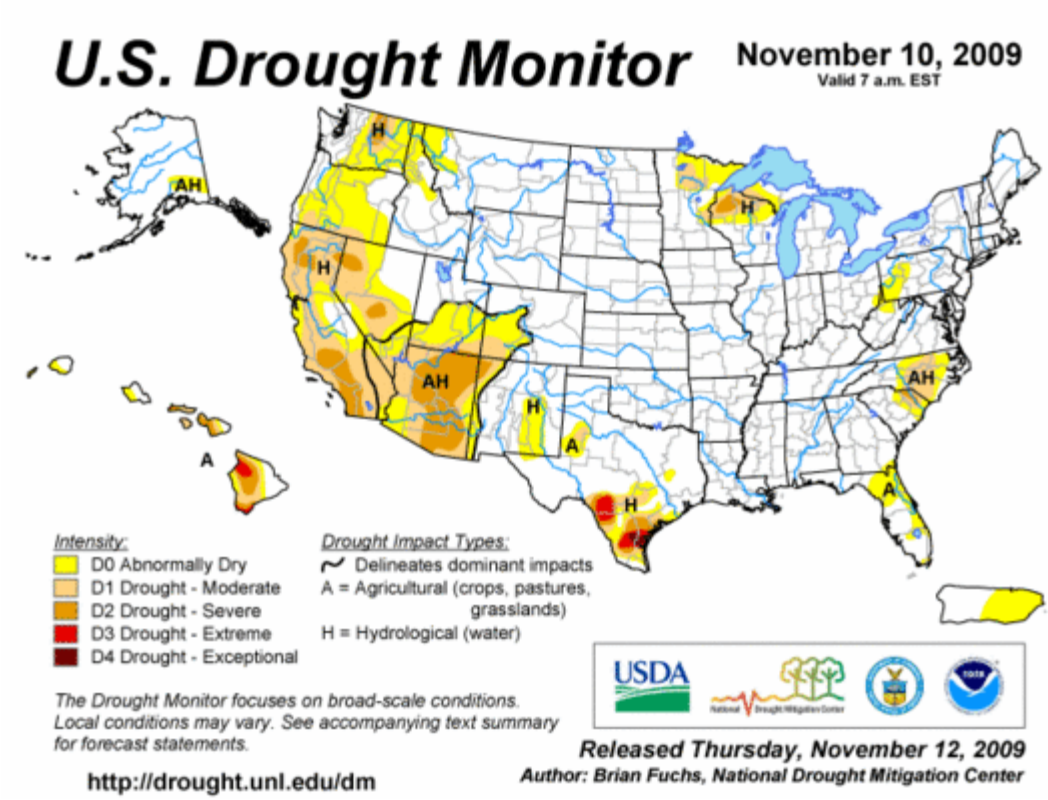
October was the wettest and 3rd coldest October on record for lower 48 states. Over 10 inches of rain fell in a large portion of the Mississippi Valley with 20+ inches at Monroe and Shreveport in northern Louisiana.

Winter 2009-2010 started early in the central High Plains and Rockies. Several snowstorms struck parts of Colorado, Wyoming and Nebraska in October. On October 10, in association with the first snowstorm, Cheyenne, WY had a high temperature of 17 degrees, 44 degrees below normal. North Platte, NE, with about 30 inches of snowfall in October (nearly twice the previous record for the month), has already exceeded their normal annual snowfall.

Drought conditions diminished across the country late this year to the second smallest drought footprint for this decade. Only in Arizona and a few pockets of the Northwest have drought conditions intensified.

A few counties in our area near the Virginia/North Carolina border were abnormally dry prior to our November storm but this is likely not the case now.

Climate Corner Continues...



In Wakefield's County Warning area since June, rainfall has been much above normal near the coast and near to slightly below normal well inland. Temperatures have averaged near to slightly above normal during the same period.

Norfolk, VA had their wettest August through November combination on record. Wallops Island, VA had the second highest calendar day rainfall on record for any month in July with 5.91 on July 27. Note that the climate record for Wallops Island only goes back to 1966.

October had an above normal number of days of precipitation and cloudy skies. At Richmond, 13 days of measurable precipitation ties for 8th place as the most number of such days. The highest was 17 days in 1971.

SALISBURY ASOS

Climate records started in 1906 at Salisbury, MD. Since 1948, the official readings have been taken at the Salisbury Wicomico Regional Airport. The exact site has been situated at various locations in order to accommodate development and construction at the airport.

Between May 2001 and August 2009, the sensor was in a low lying area of the airport.

On clear calm nights, temperatures were as much as 3 to 5 degrees cooler at this location compared with readings taken elsewhere. This is based on comparison to model guidance and to other locations on the eastern shore. Many of the daily record low temperatures for the site occurred during this decade. Also during this period, monthly and annual temperature departures were usually below normal, since the "current climate normal period" ran from 1971 to 2000 and did not take into account the cooler readings. Current model data for low temperature forecasts at Salisbury were impacted by the readings that were taken. The temporary site also experienced more heavy fog events.

Thank You!
Hope you enjoyed this edition of
The Weather Nut!

A Newsletter from the NWS Office in Wakefield, VA

National Weather Service
10009 General Mahone Hwy
Wakefield, VA 23888

Phone: 757-899-4200
Fax: 757-899-3605
E-mail Editor:
sonia.mark.flechtner@noaa.gov

Our official web site
www.weather.gov/akq

National Weather Service
Mission Statement

The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community.